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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/796,686	03/08/2004	David E. Freker	42P19260	2635

8791 7590 03/17/2006

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EXAMINER
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NGUYEN, HAU H

ART UNIT	PAPER NUMBER
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2676

DATE MAILED: 03/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/796,686

Applicant(s)

FREKER ET AL.

Examiner

Hau H. Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 15 December 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 11-17 and 30-32 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-10 and 18-29 are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

***Response to Election/Restrictions***

1. Applicant's election with traverse of Group II in the reply filed on December 15, 2005 is acknowledged. The traversal is on the ground(s) that "no unduly extensive or burdensome search would be required to examine the claims of the various species in the same applications". This is not found persuasive because different species (as indicated in the previous Office Action) require the examiner searches in different classes or sub-classes.

The requirement is still deemed proper and is therefore made FINAL.

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 11-17, and 30-32 are rejected under 35 U.S.C. 102(b) as being anticipated by Aleksic et al. (U.S. Patent No. 6,469,703).

Referring to claims 11 and 30, as shown in Figs. 1 and 7, Aleksic et al. teach a computer system comprising a graphics controller 640, a dual channel memory 140 (Figs. 1 and 4), a central processing unit 110, a memory controller 630 coupled to the CPU via data router 620, to the dual channel memory 140, and to the graphics controller 640. As shown in Fig. 5, Aleksic et al. teach the memory locations of channels CH0 and CH1 partitioned into blocks, which are logically addressed by channels CH0 and CH1. In the embodiment shown, the blocks are accessed by CH0 and CH1 in an alternating manner. For example, block 0 (first sequence of

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pairs of consecutive data blocks), as illustrated in table 5 of FIG. 5, is accessed by channel CH0; block 1, which is horizontally adjacent to block 0, is accessed by channel CH1; the next horizontally adjacent block, block 2, is accessed by channel CH0. In this alternating manner, different data channels access horizontally adjacent data blocks associated with the first row of memory (row 0). In the specific embodiment of FIG. 4, the horizontally adjacent channels have adjacent physical addresses, in that the last memory location of block 0 is immediately adjacent to the first memory location of block 1 (col. 6, lines 1-16).

In regard to claims 12 and 13, because each block of data shown in Fig. 5, (block 0, 1,...) can be interpreted as pairs of consecutive data block, the first sequence of pairs consists of odd pairs, and the second sequence consists of even pairs. If the pairs of blocks are number sequentially, the first memory channel stores a pair of blocks 0, 1 and a pair of blocks 4, 5, and the second memory channel stores a pair of blocks 2 and 3, and a pair of blocks 6 and 7.

In regard to claims 14-15, 31-32, with reference again to Fig. 5, after block 4, or block 9, or block E, the first memory channel CH0 and the second memory channel CH1 reverses the order (see also col. 6, lines 17-36). Since the first sequence and second sequence reverse their order after a transition interval, the first sequence consists of even pairs, and the second sequence consists of odd pairs.

As for claims 16 and 17, Aleksic et al. also teach the memory mapping is assigned by the graphics controller (col. 8, lines 60-63).

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*Conclusion*

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hau H. Nguyen whose telephone number is: 571-272-7787. The examiner can normally be reached on MON-FRI from 8:30-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kee Tung can be reached on (571) 272-7794.

The fax number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system contact the Electronic Business Center (EBC) at 866-2 17-9197 (toll-free).

H. Nguyen

03/14/2006

A handwritten signature in black ink, appearing to read 'K. Tung', with a long, sweeping horizontal stroke extending to the right.

**Kee M. Tung**  
**Primary Examiner**